

IN THE CLAIMS

Amendments to the Claims:

1. [Previously presented] A somatic cell gene targeting vector comprising:
a gene targeting construct comprising a first cloning site operably linked to a DNA encoding a positive selection marker, a second cloning site and a first polyadenylation sequence, wherein the construct is promoterless, wherein the first cloning site comprises a first DNA segment that is homologous to a first genomic target sequence and the second cloning site comprises a second DNA segment that is homologous to a second genomic target sequence; and
an expression cassette comprising a promoter operably linked to DNA encoding a negative selection marker and a second polyadenylation sequence.
2. [Original] The vector of claim 1, wherein the gene targeting construct further comprises a first site-specific recombination sequence for a recombinase and a second site-specific recombination sequence for the recombinase, wherein the first and second site-specific recombination sequences flank the DNA encoding the positive selection marker.
3. [Original] The vector of claim 2, wherein the recombinase is Cre recombinase.
4. [Original] The vector of claim 2, wherein the first and second site-specific recombination sequences are loxP sequences.
5. [Cancelled]
6. [Original] The vector of claim 1, wherein the positive selection marker is neomycin phosphotransferase.
7. [Original] The vector of claim 1, wherein the first polyadenylation sequence comprises a SV40 polyadenylation sequence.

- 8-9. [Canceled]
10. [Currently Amended] The vector of claim 32 [[9]], wherein the promoter is a modified RSV promoter.
11. [Original] The vector of claim 1, wherein the expression cassette comprises a BGH polyadenylation sequence.
12. [Original] The vector of claim 1, wherein the negative selection marker is HSV thymidine kinase or diphtheria toxin (DT-A).
13. [Previously presented] A method for disrupting a gene of interest in a somatic cell *in vitro*, which method comprises introducing a targeting vector comprising a gene targeting construct comprising a first cloning site operably linked to a DNA encoding a positive selection marker, a second cloning site and a first polyadenylation sequence, wherein the construct is promoterless; and an expression cassette comprising a promoter operably linked to DNA encoding a negative selection marker and a second polyadenylation sequence, wherein the first cloning site comprises a first DNA segment that is homologous to a first genomic target sequence and the second cloning site comprises a second DNA segment that is homologous to a second genomic target sequence, into a somatic cell such that the first genomic target sequence and the second genomic target sequence recombine with the gene to yield a genetically altered cell.
14. [Previously presented] The method of claim 13, wherein the vector recombines with the gene *via* homologous recombination.
15. [Original] The method of claim 13, further comprising identifying the genetically altered cell, wherein the cell's genome comprises the construct and the positive selection marker is expressed.

16. [Original] The method of claim 13, wherein the somatic cell is a mammalian cell.
17. [Original] The method of claim 16, wherein the mammalian cell is a human cell.
18. [Original] The method of claim 13, further comprising introducing a double-stranded oligonucleotide into the somatic cell.
19. [Original] The method of claim 18, wherein the double-stranded oligonucleotide is 62 bp.
20. [Previously presented] A method for disrupting a gene of interest in a somatic cell *in vitro*, which method comprises:
 - introducing a targeting vector comprising a gene targeting construct comprising a first cloning site operably linked to a DNA encoding a positive selection marker, a second cloning site and a first polyadenylation sequence, wherein the construct is promoterless; and an expression cassette comprising a promoter operably linked to DNA encoding a negative selection marker and a second polyadenylation sequence, wherein the first cloning site comprises a first DNA segment that is homologous to a first genomic target sequence and the second cloning site comprises a second DNA segment that is homologous to a second genomic target sequence, into the somatic cell such that the first genomic target sequence and the second genomic target sequence recombine with the gene to yield a first genetically altered cell; and
 - introducing a recombinase to the first genetically altered cell, such that the positive selection marker is removed from the construct to yield a second genetically altered cell.
21. [Original] The method of claim 20, wherein the vector recombines with the gene *via* homologous recombination.

22. [Original] The method of claim 20, further comprising identifying the first genetically altered cell, wherein the cell's genome comprises the construct and the positive selection marker is expressed.
23. [Original] The method of claim 22, further comprising identifying the second genetically altered cell.
24. [Original] The method of claim 20, wherein the somatic cell is a mammalian cell.
25. [Original] The method of claim 24, wherein the mammalian cell is a human cell.
26. [Original] The method of claim 20, further comprising introducing a double-stranded oligonucleotide into the somatic cell.
27. [Original] The method of claim 26, wherein the double-stranded oligonucleotide is 62 bp.
28. [Original] An isolated cell prepared by the method of claim 13.
29. [Original] An isolated cell prepared by the method of claim 20.
30. [Previously presented] An isolated somatic cell comprising the vector of claim 1.
31. [Previously presented] The isolated somatic cell of claim 30, wherein the cell is a B cell or a fibroblast cell.
32. [New] A somatic cell gene targeting vector comprising:
a gene targeting construct comprising a first cloning site operably linked to a DNA encoding a positive selection marker, a second cloning site and a first polyadenylation sequence, wherein the construct is promoterless, wherein the first

cloning site comprises a first DNA segment that is homologous to a first genomic target sequence and the second cloning site comprises a second DNA segment that is homologous to a second genomic target sequence; and
an expression cassette comprising a promoter operably linked to DNA encoding a negative selection marker and a second polyadenylation sequence, wherein the promoter is a weak promoter, a phosphoglycerate kinase (PGK) promoter or a modified Rous sarcoma virus (RSV) promoter.